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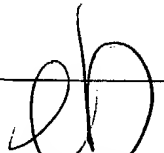
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,999	09/27/2001	Horst Berneth	MO-6633/LEA 33,661	8752
157	7590	09/01/2004	EXAMINER	
BAYER MATERIAL SCIENCE LLC			ANGEBRANDT, MARTIN J	
100 BAYER ROAD			ART UNIT	
PITTSBURGH, PA 15205			PAPER NUMBER	

1756

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/937,999	BERNETH ET AL.	
	Examiner	Art Unit	
	Martin J Angebrannt	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 6, 11 and 13-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 10, 11, 13, 14 and 18 is/are rejected.
- 7) ☒ Claim(s) 15-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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1. The response by the applicant has been read and given careful consideration. Responses to the argument of the applicant are presented after the first rejection to which they are directed. Rejections of the previous office action not repeated below are withdrawn based amendments to the claims or the terminal disclaimer.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2b The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The ranges for P and x:y have a basis in the specification either in original claim 10 as pointed out by the applicant or on page 16 at lines 20-24. The preferred ranges of 20 mol% or 30 mol % for x+y do not appear to be supported by the specification as originally filed. The applicant should either point to the portion of the specification relied upon or remove this subject matter in the next response.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3,5,6,10,11,14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berneth et al. DE 19703132.

See copolymers on pages 10-15. These are evaluated on the basis of their absorption maxima when coated 0.9 microns thick on a glass substrate and written upon using an argon ion laser at a laser power of 250 mW (9/5-9). See dye monomer on 14/5 (upper dye of formula 8 and the same as that used in XIX of instant specification on page 20), dye monomer at 14/20 (lower monomer of formula 8, and similar to that used in dye XIX of instant specification on page 21.) and dye monomer at 13/30, lower monomer in formula 7 and identical to that at 11/8 used in dye XIX of instant specification on page 21.)

It would have been obvious to one skill in the art to modify the co-polymer of formula 8 by either adding the second monomer shown in formula 7 or replacing the second monomer of formula 8 with the second monomer shown in formula 7 with a reasonable expectation of forming a useful optical recording medium based upon equivalent function. This combination anticipates the co-polymer of formula XVIII shown in claim 1.

The applicant argues that the combination is not shown and that motivation is not provided. The examiner notes that the monomers involved in the modification are disclosed as functionally equivalent and used alternatively on page 5 at lines 5-20 and are both embraced by the formula XI found on page 5 of the reference. This functional equivalence is congruent with the doctrine of equivalence routinely applied in patent prosecution and is particularly relevant when the net effect is the substitution of oxygen for N-methyl as taught by formula XI in the reference applied. The references to the particular monomers has been deleted to reduce the confusion. The applicant argues that terpolymers are not embraced by the scope of coverage

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sought. This is incorrect as while the ration of x:y is recited, the percentages are not and comprising language is used. Therefore the claims do not exclude copolymers containing more than two monomers. The disclosure of equivalence clearly links the monomers held by the examiner as functionally equivalent and based upon the teachings of formula XI in the reference, this would have been appreciated by one of ordinary skill in the art. The functional equivalence establishes a reasonable expectation of success and provides motivation.

5. Claims 1-3,5,6,10,11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berneth et al. DE 19703132, in view of Savant et al. '221.

Savant et al. '221 in example V describes the azo dyes bound to a polyethylene vinyl alcohol backbone and coated to a thickness of 10 microns. Examples XIII to XX describe thicknesses of 10 to 150 microns (0.1 to 0.15 mm) with dye loading concentrations of 10% as the best (23/53-55). The storage of multiple holograms in the same spot by controlling the angle between the incident (object) and reference beams is disclosed. (25/46-57 and 7/11-15). Suitable polymers are disclosed in columns 8-10. Useful azo dyes are disclosed in columns 9-17. The formation of thicknesses of 10-1000 microns by spin coating is disclosed. (18/51-66). The lowest layer in figure 3 is a reflective layer.

It would have been obvious to one skilled in the art to modify the examples of Berneth et al. DE 19703132 by adding a reflective film as taught by Savant et al. '221 to allow the reading of data by reflection as shown in figure 3.

7 Claims 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

For these polymers at least one of the monomers is not disclosed in the prior art.

8 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

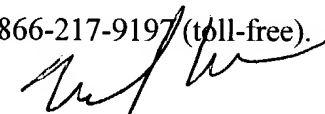
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J. Angebranndt  
Primary Examiner  
Art Unit 1756

08/26/2004